PTO-1390 (Rev. 12-2004)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371

ATTORNEY'S DOCKET NUMBER	U.S. APPLICATION NO. (If known, see 37 CFR 1.5)
BRV.10035	10/518,453

INTERNATIONAL APPLICATION NO.	INTERNATIONAL FILING DATE	PRIORITY DATE CLAIMED
PCT/FR2003/001944	June 24, 2003	June 24, 2002

TITLE OF INVENTION: METHOD AND DEVICE FOR DEPOSITING CARBON NANOTUBES ... NANOTUBES BY PYROLYSIS

APPLICANT(S) FOR DO/EO/US: Martine MAYNE et al.

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☐ This is a **FIRST** submission of items concerning a submission under 35 U.S.C. 371.
2. ☑ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a submission under 35 U.S.C. 371.
3. ☐ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.
4. ☐ The US has been elected (Article 31).
5. ☐ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
   a. ☐ is attached hereto (required only if not communicated by the International Bureau).
   b. ☐ has been communicated by the International Bureau.
   c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
   a. ☐ is attached hereto.
   b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
   a. ☐ are attached hereto (required only if not communicated by the International Bureau).
   b. ☐ have been communicated by the International Bureau.
   c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
   d. ☐ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11 to 20 below concern document(s) or information included:

11. ☑ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☐ A preliminary amendment.
14. ☐ An Application Data Sheet under 37 CFR 1.76.
15. ☐ A substitute specification.
16. ☐ A power of attorney and/or change of address letter.
17. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13*ter*.2 and 37 CFR 1.821- 1.825.
18. ☐ A second copy of the published International Application under 35 U.S.C. 154(d)(4).
19. ☐ A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).
20. ☑ Other items or information: PTO/SB/08 and 23 documents

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U.S. APPLICATION NO. (if known, see 37 CFR 1.5)	INTERNATIONAL APPLICATION NO.	ATTORNEY'S DOCKET NUMBER
10/518,453	PCT/FR2003/001944	BRV.10035

21. The following fees are submitted:		
☐ a) Basic national fee..... $300.00		$
☐ b) Examination fee..... $200.00		$
☐ c) Search fee..... $500.00		$
TOTAL OF ABOVE CALCULATIONS = $1000.00		$
☐ Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium). The fee is **$250** for each additional 50 sheets of paper or fraction thereof.		

Total Sheets	Extra sheets	Number of each additional 50 or fraction thereof (round up to a whole number)	RATE	
- 100 =	/50 =		x $250.00	$
Surcharge of **$130.00** for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 CFR 1.492(e)).				$

CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	
Total claims	- 20 =	1	x $50.00	$
Independent claims	- 3 =		x $200.00	$
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ $360.00	$
TOTAL OF ABOVE CALCULATIONS =				$
☐ Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by ½.				$
SUBTOTAL =				$
Processing fee of **$130.00** for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(f)). +				$
TOTAL NATIONAL FEE =				$
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). **$40.00** per property +				$
TOTAL FEES ENCLOSED =				$
			Amount to be refunded:	$
			Amount to be charged:	$

a. ☐ A check in the amount of $ _____ to cover the above fees is enclosed.

b. ☐ Please charge my Deposit Account No. 50-3218 in the amount of $ _____ to cover the above fees. A duplicate copy of this sheet is enclosed.

c. ☑ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit t Account No. 50-3218. A duplicate copy of this sheet is enclosed.

d. ☐ Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. **Credit card information should not be included on this form.** Provide credit card information and authorization on PTO-2038.

NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.

SEND ALL CORRESPONDENCE TO:

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Mary B. Grant
SIGNATURE

Mary B. Grant Date: 8/15/05
NAME

32,176
REGISTRATION NUMBER

Patent
Attorney Docket No. BRV.10035

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Martine MAYNE et al.

Application No.: 10/518,453 Group Art Unit: Unassigned

International Filing Date: June 24, 2003 Examiner: Unassigned

Title: Method and Device for Depositing Carbon Nanotubes or Nitrogen-Doped Carbon Nanotubes by Pyrolysis Confirmation No.: 7851

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure as set forth in 37 C.F.R. § 1.56, Applicants hereby submit the following information in conformance with 37 C.F.R. §§ 1.97 and 1.98. A copy of each of the documents cited and required by 37 C.F.R. § 1.98 is enclosed.

Some of the listed documents were cited in the International Search Report and in a Search Report from the French Patent Office in corresponding prior applications, copies of which are enclosed. A copy of the English translation of International Preliminary Examination Report is also enclosed.

This Information Disclosure Statement contains information which is not in the English language but was cited in a search report or other action by a foreign patent office in a counterpart foreign application. In accordance with MPEP § 609 IIIA(3), a version of the search report or action which indicates the degree of relevance found by the foreign office is being submitted herewith. English language equivalent applications also have been provided according to MPEP § 609 IIIA(3), where applicable.

To assist the Examiner, the documents are listed on the attached form PTO/SB/08. It is respectfully requested that an Examiner initialed copy of this form be returned to the undersigned.

The cited documents are being submitted within three (3) months of the filing or entry of the national stage of this application or before the first Office Action on the merits, whichever is later. Since these documents are being filed within the time period set forth in 37 C.F.R. § 1.97(b), no fee or statement is required.

The Director is hereby authorized to charge any appropriate fees that may be required by this paper, and to credit any overpayment, to Deposit Account No. 50-3218.

Respectfully submitted,

HUTCHISON & MASON PLLC

Date: 8/16/05

By: Mary B. Grant
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I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on 8/16/2005

Jennie Snead
(Typed Name of Person Signing Certificate)

(Signature of Person Signing Certificate)

Date of Signing: 8/16/05

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Substitute for form 1449A/PTO **INFORMATION DISCLOSURE STATEMENT BY APPLICANT** *(Use as many sheets as necessary)*	*Complete if Known*	
	Application Number	10/518,453
	Filing Date	June 24, 2003 (Int'l. Filing Date)
	First Named Inventor	MAYNE, Martine
	Group Art Unit	Unknown
	Examiner Name	Unknown
Sheet 1 of 3	Attorney Docket No: BRV.10035	

US PATENT DOCUMENTS			
Examiner Initial *	**USP Document Number**	**Publication Date**	**Name of Patentee or Applicant of cited Document**
	5 945 162	08/31/1999	Senateur et al.

FOREIGN PATENT DOCUMENTS				
Examiner Initials*	**Foreign Document No**	**Publication Date**	**Pages,Columns,Lines,Where Relevant Passages or Relevant Figures Appear**	**Abstract, Translation, English Language Equivalent or Search Report**
	FR-2 707 671	01/20/1995		English equivalent provided
	WO-00/63115	10/26/2000		

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS		
Examiner Initials*	**Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.**	**Abstract, Translation, English Language Equivalent or Search Report**
	AGO, HIROKI ,et al., "Dispersion of metal nanoparticles for aligned carbon nanotube arrays", Applied Physics Letters, vol. 77, no. 1, pp. 79-81 (Jul. 3, 2000).	
	AGO, HIROKI ,et al., "Gas-Phase Synthesis of Single-wall Carbon Nanotubes from Colloidal Solution of Metal Nanoparticles", J. Phys. Chem. B, vol. 105, no. 43, pp. 10453-56 (Nov. 1, 2001).	
	ANDREWS, R. ,et al., "Continuous production of aligned carbon nanotubes: a step closer to commercial realization", Chemical Physics Letters, vol. 303, no. 5-6, pp. 467-474 (Apr. 16, 1999).	
	CAO, ANYUAN ,et al., "An effective way to lower catalyst content in well-aligned carbon nanotube films", Carbon, vol. 39, no. 1, pp. 152-155 (Jan. 2001).	
	CAO, ANYUAN ,et al., "Synthesis of well-aligned carbon nanotube network on a gold-patterned quartz substrate", Applied Surface Science, vol. 181, pp. 234-238 (2001).	
	CHE, R. ,et al., "Fe2O3 particles encapsulated inside aligned CNx nanotubes", Appl. Phys. Lett., vol. 82, no. 19, pp. 3319-3321 (May 12, 2003).	

EXAMINER **DATE CONSIDERED**

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.1 Applicant's unique citation designation number (optional) 2 Applicant is to place a check mark here if English language Translation is attached

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Substitute for form 1449A/PTO **INFORMATION DISCLOSURE STATEMENT BY APPLICANT** *(Use as many sheets as necessary)*	*Complete if Known*	
	Application Number	10/518,453
	Filing Date	June 24, 2003 (Int'l. Filing Date)
	First Named Inventor	MAYNE, Martine
	Group Art Unit	Unknown
	Examiner Name	Unknown
Sheet 2 of 3	Attorney Docket No: BRV.10035	

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS		
Examiner Initials*	**Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.**	**Abstract, Translation, English Language Equivalent or Search Report**
	DATABASE WPI, Section Ch, Week 200273, Derwent Publications Ltd., London, GB (Apr. 3, 2002) (Doc. XP-002232175) KR 20020001392.	
	GROBERT, N. ,et al., "A novel route to aligned nanotubes and nanofibres using laser-patterned catalytic substrates", Appl. Phys. A, vol. 70, pp. 175-183 (2000).	
	GROBERT, N. ,et al., "Alloy nanowires: Invar inside carbon nanotubes", Chem. Commun., pp. 471-472 (2001).	
	HUANG, SHAOMING ,et al., "Patterned and Contact Transfer of Well-Aligned Carbon Nanotube Films", J. Phys. Chem. B, vol. 103, pp. 4223-4227 (1999).	
	KAMALAKARAN, R. ,et al., "Synthesis of thick and crystalline nanotube arrays by spray pyrolysis", Appl. Phys. Lett., vol. 77, no. 21, pp. 3385-3387 (Nov. 20, 2000).	
	KUDASHOV, A. G.,et al., "Gas-Phase Synthesis of Nitrogen-Containing Carbon Nanotubes and Their Electronic Properties", Physics of the Solid State, vol. 44, no. 4 (2002)pp. 626-629.	
	LEE, CHEOL J.,et al., "Diameter-controlled growth of carbon nanotubes using thermal chemical vapor deposition", Chem. Phys. Lett., vol. 341, pp. 245-249 (2001).	
	MAYNE, M. ,et al., "Pyrolytic production of aligned carbon nanotubes from homogeneously dispersed benzene-based aerosols", Chem. Phys. Lett. vol. 338, pp. 101-107 (Apr. 20, 2001).	
	NARDUCCI, D. ,et al., "Modeling of aerosol-assisted chemical vapor co-deposition of NiO and carbon nanotubes", J. Phys. IV France, vol. 9, no. 8, pp. 741-747 (Sep. 1999).	

EXAMINER **DATE CONSIDERED**

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	Filing Date	June 24, 2003 (Int'l. Filing Date)
	First Named Inventor	MAYNE, Martine
	Group Art Unit	Unknown
	Examiner Name	Unknown
Sheet 3 of 3	Attorney Docket No: BRV.10035	

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS		
Examiner Initials*	**Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.**	**Abstract, Translation, English Language Equivalent or Search Report**
	RAO, C.N.R. ,et al., "Large aligned-nanotube bundles from ferrocene pyrolysis", Chem. Commun., pp. 1525-26 (1998).	
	SATISHKUMAR, B. C.,et al., "Bundles of aligned carbon nanotubes obtained by the pyrolysis of ferrocene-hydrocarbon mixtures: role of the metal nanoparticles produced in situ", Chem. Phys. Lett., vol. 307, pp. 158-162 (1999).	
	SINGH, CHARANJEET ,et al., "Production of aligned carbon nanotubes by the CVD injection method", Physics B, vol. 323, no. 1-4, pp. 339-340 (Oct. 3, 2001).	
	WEI, B. Q.,et al., "Growing pillars of densely packed carbon nanotubes on Ni-coated silica", Carbon, vol. 40, pp. 47-51 (2002).	
	ZHANG, X. Y.,et al., "Template synthesis of well-graphitized carbon nanotube arrays", Materials Science and Engineering, vol. A308, pp. 9-12 (2001).	
	ZHU, H. W.,et al., "Direct Synthesis of Long Single-Walled Carbon Nanotube Strands", Science, vol. 296, pp. 884-886 (May 3, 2002).	

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